

## **ABSTRACT OF THE DISCLOSURE**

An optical fiber capable of being applied to both the WDM mode and CWDM mode and meeting the transmission characteristics employed in the metro networks is provided. The optical fiber includes a refractive profile and comprises a core area extended along a predetermined reference axis, and a cladding area formed around the external circumference of the core area, wherein the radii of the core area and cladding area and the refractive profile are selected so that the optical fiber has following characteristics: a zero dispersion wavelength in the range of 1300 to 1350 nm; a dispersion value in the range of 13 to 18 ps/nm·km at 1550 nm wavelength; a zero dispersion wavelength in the range of 0.046 to 0.079 ps/nm<sup>2</sup>·km; and, an effective cross-section area of 70  $\mu\text{m}^2$  or more.